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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,779	02/14/2001	Srinivas Chennupaty	42390P10924	3051
8791	7590	07/13/2004	EXAMINER	
BLAKELY SOKOLOFF TAYLOR & ZAFMAN 12400 WILSHIRE BOULEVARD, SEVENTH FLOOR LOS ANGELES, CA 90025			KIM, KENNETH S	
			ART UNIT	PAPER NUMBER
			2111	

DATE MAILED: 07/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/783,779

Applicant(s)

CHENNUPATY ET AL.

Examiner

Kenneth S KIM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.


- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 24 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-16, 23-25 and 31-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 23-25, and 31-41 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

  
KENNETH S. KIM  
PRIMARY EXAMINER

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

1. Claims 1-16, 23-25, and 31-41 remain are for examination.
2. Claims 1-16, 23-25, 31-33, and 35-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Hansen, U.S. Patent No. 5,819,117, cited in the previous office action.

Hansen teaches the invention as claimed in claim 1 including a computer system (figs. 3B and 10C) comprising:

- (a) a processor (50),
- (b) a storage device coupled to the processor (40) and having stored therein an instruction, when executed by the processor, causes the processor to at least,
- (c) access a packed data operand (fig. 10C, 71) having at least two portion of data elements (bytes 0-3 and 4-7),
- (d) select a set of data elements from a portion of the packed data operand, the portion including at least two data elements (b(0) to b(3)),
- (e) copy each data element of the selected set of data elements to specified data fields located in the corresponding portion of the destination operand (74), and

further teaches as in claims 2-5,

- (f) wherein the packed data operand includes eight data elements (b(0) to b(7)) and the processor selects a set of data elements from either the upper half or the lower half (b(0) to b(3)) – claim 2,
- (g) wherein a packing device packs integer data to the data elements of 16-bits (can be any bit size) to 128 bit operand – claims 3 and 4, and

(h) the data packed and destination operands are the same operand (destination can be the source operand) – claim 5.

The method claims 6-10, the image data processing method claims 11-16 (with well known three dimensional transformation data processing), and the program product claims 23-25, the method claims 31 and 32, the processor claims 33 and 35 for three instructions, the method claims 36-38, and the processor claims 39 and 40 are equivalently rejected based on the same reason.

3. Claims 1-16, 23-25, and 31-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Sidwell, U.S. Patent No. 5,822,619, cited in the previous office action.

Sidwell teaches the invention as claimed in claim 1 including a computer system (figs. 1 and 7) comprising:

- (a) a processor (fig. 1),
- (b) a storage device coupled to the processor (10) and having stored therein an instruction, when executed by the processor, causes the processor to at least,
- (c) access a packed data operand (fig. 7; data format 4n2v1p) having at least two portion of data elements (bytes 0-3 and 4-7),
- (d) select a set of data elements from a portion of the packed data operand, the portion including at least two data elements (bytes 0-3 or 4-7; col. 8, line 42)
- (e) copy each data element of the selected set of data elements to specified data fields located in the corresponding portion of the destination operand (fig. 9, 132), and

further teaches as in claims 2-5,

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(f) wherein the packed data operand includes eight data elements (bytes 0-7) and the processor selects a set of data elements from either the upper half or the lower half

(bytes 0-3 or 4-7; col. 8, line 42) – claim 2,

(g) wherein a packing device packs integer data to the data elements of 16-bits (can be any bit size) to 128 bit operand – claims 3 and 4, and

(h) the data packed and destination operands are the same operand (destination can be the source operand) – claim 5.

The method claims 6-10, the image data processing method claims 11-16 (with well known three dimensional transformation data processing), and the program product claims 23-25, the method claims 31 and 32, the processor claims 33-35 for three instructions with upper and lower half operations (col. 8, line 42), the method claims 36-38, and the processor claims 39-41 with upper and lower half operations are equivalently rejected based on the same reason.

4 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-16, 23-25, and 31-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abdallah et al, U.S. Patent No. 6,192,476 in view of Huff et al, U.S. patent No. 6,288,723, both cited in the previous office action.

Abdallah et al teaches the invention substantially as claimed in claim 1 including a computer system (figs. 2A) comprising:

- (a) a processor (fig. 205),
- (b) a storage device coupled to the processor (285) and having stored therein an instruction, when executed by the processor, causes the processor to at least,
- (c) access a packed data operand (col. 3, line 20) having at least two portion of data elements (subsets, col. 3, line 19),
- (d) select a set of data elements from a portion of the packed data operand, the portion including at least two data elements (subset, col. 3, line 19), and

further teaches as in claims 2-5,

- (f) wherein the packed data operand includes eight data elements (can be any number; col. 10, lines 53-56) and the processor selects a set of data elements from either the upper half or the lower half (upper and lower subset) – claim 2,
- (g) wherein a packing device packs integer data to the data elements of 16-bits (can be any bit size) to 128 bit operand – claims 3 and 4, and
- (h) the data packed and destination operands are the same operand (col. 7, line 54) – claim 5,

however, does not expressly state that each data element of the selected set of data elements are copied to specified data fields located in the corresponding portion of the destination operand, while teaching ADD and MUL operations on the selected set of data elements (i.e., partial width operations).

Huff et al teaches the method of copying each data element of the selected set of data elements to specified data fields located in a destination operand (fig. 3E),

It would have been obvious to a person of ordinary skill in the art at the time the invention was made that the partial width operation can be any type of operation (Abdallah et al; col. 10, line 16) including the copying operation. The person would have been motivated to provide a partial width copying operation for enhanced versatility.

The method claims 6-10, the image data processing method claims 11-16 (with well known three dimensional transformation data processing), and the program product claims 23-25, the method claims 31 and 32, the processor claims 33-35 for three instructions for upper and lower portion operations (col. 13, line 25), the method claims 36-38, and the processor claims 39-41 with upper and lower portion operations (are equivalently rejected based on the same reason.

6. Applicant's argument filed May 24, 2004 has been considered but they are not persuasive.

Applicant argued that the load operation in Hansen is between a 32-bit source memory operand and 64 bit register operand and thus the 32-bit does not constitute a *portion* of a source operand and that the source and the destination operand cannot be the same.

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The reference indicates that the 32-bit constitutes the lower order bytes or the higher order bytes (col. 14, lines 58 and 62) and thus showing the copying of data from a portion of memory operand to a corresponding portion of register operand.

The reference teaches the selective copying operation of data elements while loading and the selective copying operation can be done from a source operand to a destination operand which are the same. The method of using a source operand as the destination operand is well known in the art (see Abdallah et al, col. 7, line 54).

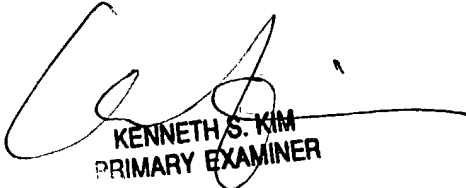
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth S KIM whose telephone number is (703) 305-9693. The examiner can normally be reached on M-F (8:30-17:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Rinehart can be reached on (703) 305-4815. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

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July 9, 2004

  
KENNETH S. KIM  
PRIMARY EXAMINER